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U. S. Department of Agriculture

United States Department of Agriculture
Bureau of Biological Survey

PREPARATION AND IDENTIFICATION OF PLANT SPECIMENS
IN THE BUREAU OF BIOLOGICAL SURVEY

Prepared in the Section of Food Habits, Division of Wildlife Research

PURPOSE

Plants are important elements in the food and environment of most birds and mammals. Field biologists, either in wildlife management or wildlife research, need to preserve plant material with which they are unfamiliar, at least until it has been identified. Laboratory technicians in wildlife research are in constant need of reference collections of seeds, buds, leaves, and other plant parts, particularly to aid in identifying food items in stomach analysis.

METHODS

Collecting should be done with discrimination, care being taken to select typical specimens and to avoid unjustified duplication of the same species. Whether specimens are collected for temporary or permanent use they should be carefully prepared from well-developed plants. Department Circular No. 76, "Directions for Collecting Flowering Plants and Ferns" (obtainable from Superintendent of Documents at 5 cents a copy), gives instructions that will improve the quality of collections and add to the accuracy of the work that depends on them.

Specimens that cannot be identified by the field biologist should be sent directly to the Biological Survey, care of the Section of Food Habits, Division of Wildlife Research, and a carbon copy of the letter of transmittal should be referred to the Washington Office of the Division in which the biologist works. Botanists of the Food Habits Section will identify marsh and aquatic plants and will arrange for the identification of others by botanists in the Bureau of Plant Industry or the Smithsonian Institution. Field biologists in some localities can avail themselves of the services of local botanists who, in turn, profit by the collections of the Survey men. Whenever such cooperative arrangements exist, it is recommended that systematic records be kept of identifications and that credit for the work be given in periodic reports.

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All specimens should be submitted in duplicate under the same number, but if a collector wishes to keep permanently a set of his plants he should make each collection in triplicate, sending to Washington, to be retained there, two sheets of each plant that he wishes identified. Additional seeds or fruits may be sent in identically numbered envelopes, either with the sheets or separately. Complete data should be written on the sheets or in a separate list, but each sheet should bear at least the collector's name and his serial number. Collectors should number their collections serially (beginning with 1 and continuing indefinitely, without repetition for successive years or different areas). It is advisable to record numbers, names, and accompanying data in a catalog.